

To: Edwards, Kristine[Edwards.Kristine@epa.gov]
From: Hestmark, Martin
Sent: Mon 8/24/2015 2:37:58 PM
Subject: Re: Bullion adit removal action - sequence of events

Will do. See you tomorrow

Sent from my iPhone

On Aug 24, 2015, at 7:49 AM, Edwards, Kristine <Edwards.Kristine@epa.gov> wrote:

I'll do that. And it looks like Joe V. made arrangements for us to go out to the site on Tuesday afternoon with the State. We'll get that clarified. Bring some hiking boots and maybe a hat ☺.

Kristine Edwards

Remedial Project Manager

Region 8 Montana Office

10 West 15th Street, Suite 3200

Helena, MT 59626

406-457-5021

From: Hestmark, Martin
Sent: Monday, August 24, 2015 7:47 AM
To: Edwards, Kristine; Coate, Carson
Subject: Re: Bullion adit removal action - sequence of events

That would be great. Looking forward to it. Also if you could let SF and anyone else who has an interest I could be available to discuss Gold King. I will be there Tuesday and Wednesday and can also meet with any and all that wish to visit.

Sent from my iPhone

On Aug 24, 2015, at 7:42 AM, Edwards, Kristine <Edwards.Kristine@epa.gov> wrote:

<image001.gif>

You're welcome Martin. I was planning a trip to the site on Wednesday if that works for you.

Kristine Edwards

Remedial Project Manager

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406-457-5021

From: Hestmark, Martin

Sent: Friday, August 21, 2015 11:42 AM

To: Edwards, Kristine; Vranka, Joe; Murray, Bill

Cc: Nguyen, Duc; Dennis Smith (Dennis.Smith2@CH2M.com); Lensink, Andy

Subject: RE: Bullion adit removal action - sequence of events

Thanks Kristine! I am looking forward to actually seeing it with you and not just knowing it through the Crystal and Bullion Decisions. See you tuesday. Joe is trying to coordinate with MDEQ so that I can meet with Tom L and George Mathiues and then be available for staff so I don't know what your schedule looks like or mine but will try to be nimble.

From: Edwards, Kristine

Sent: Thursday, August 20, 2015 3:12 PM

To: Vranka, Joe; Murray, Bill; Hestmark, Martin

Cc: Nguyen, Duc; Dennis Smith (Dennis.Smith2@CH2M.com); Lensink, Andy

Subject: Bullion adit removal action - sequence of events

At Joe's request, I am providing the sequencing of activities that will occur prior to opening the adit at the Bullion.

1. We will continue to draw down the water in the well 300' upslope of the collapsed adit. We believe we've drawn down more than half of the adit volume to date, and the seeps in the slope above the adit are starting to dry up slightly and the water discharging from the collapsed portal is significantly lower than when we started – a clear indication that the volume flooding the mine workings is significantly lower. The water is pumped to the treatment pond where it is mixed with caustic and the pH is being elevated to approximately pH 7, then discharged to a rock lined channel that leads to Jill Creek.
2. The treatment pond will be maintained and plastic sheeting will be placed on the downslope face to prevent erosion in the event of a significant rainfall event. The integrity of the treatment pond is checked daily.
3. Once all of the AMD in the adit has been pumped down as far as possible, the crew will pump almost all of the treated water in the pond out to provide sufficient freeboard prior to opening the adit.
4. A smaller pond/retention area will be dug below the adit portal and a bermed channel will be placed that directs any flow from the adit to the first pond, and then to the existing treatment pond.
5. About halfway between the well and the adit portal, the crew will excavate carefully down to the adit ceiling and will pump out any remaining sludges in the adit behind the debris plug.
6. After the sludges and contaminated water have been removed to the greatest degree possible, the adit portal will be excavated until we reach competent bedrock.
7. A 24" pipe will then be installed in the adit with a small bulkhead to capture and direct the ongoing adit flow into the rock lined channel. We may need to treat the adit discharge in the treatment pond for a while depending on the amount of iron oxides in the flow. Once the flow has stabilized, however, the adit pipe will be directed to the rock lined channel which connects to Jill Creek. This water will flow untreated until remedial funding is provided and a passive treatment system can be installed. The free flowing condition is required to assure that water does not build up again until we obtain remedial funding and implement an RA. If remedial funds are provided, we can begin construction of the passive treatment system in 2016 or 2017.

Let me know if you have any questions, comments, or concerns. I would also appreciate it if you could provide written approval of the approach described.

Thanks, Kris

Kristine Edwards

Remedial Project Manager

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